

...AUGUST 2013 CLIMATE SUMMARY...

SUMMARY FOR THE SAN FRANCISCO BAY AREA AND MONTEREY BAY AREA...

THE WEATHER DURING THE FIRST 12 DAYS OF AUGUST WAS SIMILAR TO THE WEATHER OUR AREA EXPERIENCED DURING MUCH OF JULY...COOL WITH WIDESPREAD NIGHT AND MORNING LOW CLOUDS AND FOG. AN UPPER LEVEL TROUGH PERSISTED OFF THE CALIFORNIA COAST...MAINTAINING A DEEP MARINE LAYER AND ONSHORE FLOW. SAN JOSE'S HIGH TEMPERATURE WAS BELOW NORMAL FOR EACH OF THE FIRST ELEVEN DAYS OF AUGUST. NIGHT AND MORNING DRIZZLE WAS COMMON NEAR THE COAST DURING THE FIRST 12 DAYS OF AUGUST. AT HALF MOON BAY ON THE SAN MATEO COUNTY COAST...THERE WAS ENOUGH DRIZZLE TO MEASURE FOR EIGHT CONSECUTIVE DAYS...FROM THE 5TH THROUGH THE 12TH.

A BRIEF AND MODEST WARM-UP OCCURRED AROUND THE MIDDLE OF AUGUST AS THE UPPER RIDGE OVER THE DESERT SOUTHWEST EXPANDED SLIGHTLY TO THE WEST. A WEAK UPPER LEVEL LOW THEN DEVELOPED OFF THE CENTRAL CALIFORNIA COAST ON SATURDAY THE 17TH. CIRCULATION AROUND THIS LOW BROUGHT MONSOONAL MOISTURE NORTHWARD ACROSS OUR REGION. INSTABILITY WAS INITIALLY LACKING AND SO THIS MONSOONAL MOISTURE ONLY RESULTED IN SOME MID LEVEL CLOUDINESS ON THE 17TH AND 18TH. BUT THE AIRMASS BECAME MORE UNSTABLE WITH TIME AND BY MIDDAY ON MONDAY THE 19TH THUNDERSTORMS DEVELOPED. THE VAST MAJORITY OF THE THUNDERSTORMS ON THE AFTERNOON AND EVENING OF THE 19TH WERE IN A LINE THAT EXTENDED FROM NEAR THE SAN MATEO COUNTY COAST WESTWARD WELL OUT OVER THE OPEN OCEAN. BY 8 PM THAT EVENING...LIGHTNING DETECTION NETWORKS HAD PICKED UP OVER 2500 LIGHTNING STRIKES...MOST OF THEM OFFSHORE. WIDELY SCATTERED THUNDERSTORMS ALSO OCCURRED OVER SAN MATEO AND SANTA CLARA COUNTIES THAT EVENING. AND...AN ISOLATED STORM PRODUCE BRIEF RAINFALL AND THUNDER OVER CARMEL VALLEY LATE ON THE EVENING OF THE 19TH. THUNDERSTORM ACTIVITY CONTINUED INTO TUESDAY THE 20TH...BUT AGAIN MOST OF THE THUNDERSTORMS WERE OFFSHORE. ONE LIGHTNING STRIKE WAS DETECTED OVER NAPA COUNTY ON THE 20TH.

AVERAGE TEMPERATURES FOR THE MONTH OF AUGUST WERE NEAR NORMAL TO SLIGHTLY BELOW NORMAL. THERE WERE NO DAILY HIGH TEMPERATURE RECORDS SET OR TIED IN AUGUST.

NO PRECIPITATION FELL AT THE MAJORITY OF CLIMATE STATIONS DURING AUGUST. COASTAL AREAS RECEIVED MEASURABLE PRECIPITATION IN THE FORM OF MARINE LAYER DRIZZLE...MAINLY DURING THE FIRST HALF OF THE MONTH. HALF MOON BAY PICKED UP 0.15 INCHES OF DRIZZLE FROM THE 5TH THROUGH THE 12TH. ONLY A FEW INLAND LOCATIONS HAD MEASURABLE RAINFALL DURING AUGUST...INCLUDING CARMEL VALLEY AND MOUNT HAMILTON...PRIMARILY FROM ISOLATED THUNDERSTORMS LATE ON THE 19TH.

THE SUMMERS OF 2010...2011...AND 2012 WERE ALL COOLER THAN NORMAL. ALTHOUGH SOME CLIMATE STATIONS WERE COOLER THAN NORMAL ONCE AGAIN THIS SUMMER...AVERAGE SUMMER TEMPERATURES AT MOST CLIMATE STATIONS WERE NEAR NORMAL IN 2013. LISTED BELOW ARE AVERAGE TEMPERATURES FOR THE THREE SUMMER MONTHS OF JUNE...JULY AND AUGUST AT A FEW KEY LOCATIONS ACROSS THE REGION...COMPARED TO THE SUMMERTIME NORMAL.

| LOCATION      | SUMMER 2013<br>AVERAGE TEMP* | SUMMER<br>NORMAL | DEPARTURE<br>FROM NORMAL |
|---------------|------------------------------|------------------|--------------------------|
| SAN FRANCISCO | 60.5 DEG F                   | 60.5 DEG F       | 0.0 DEG F                |
| SAN JOSE      | 68.6                         | 69.2             | -0.6                     |
| NAPA          | 69.0                         | 68.4             | 0.6                      |
| LIVERMORE     | 72.4                         | 71.3             | 1.1                      |
| SALINAS       | 62.8                         | 62.0             | 0.8                      |

\*AVERAGE TEMPERATURE = (HIGH TEMPERATURE + LOW TEMPERATURE)/2

...AUGUST REGIONAL TEMPERATURE SUMMARY...

| LOCATION         | DEPARTURE   |                |                | DEPARTURE  |               |                |
|------------------|-------------|----------------|----------------|------------|---------------|----------------|
|                  | AVG<br>HIGH | NORMAL<br>HIGH | FROM<br>NORMAL | AVG<br>LOW | NORMAL<br>LOW | FROM<br>NORMAL |
| NORTH BAY...     |             |                |                |            |               |                |
| ANGWIN           | 81.8        | 85.5           | -3.7           | 52.0       | 54.3          | -2.3           |
| CALISTOGA        | 87.9        | 90.7           | -2.8           | 51.6       | 52.1          | -0.5           |
| CLOVERDALE       | 90.5        | 91.7           | -1.2           | 56.3       | 55.3          | 1.0            |
| KENTFIELD        | 81.5        | 82.3           | -0.8           | 54.7       | 53.1          | 1.6            |
| NAPA             | 82.4        | 83.0           | -0.6           | 56.0       | 55.0          | 1.0            |
| NAPA AIRPORT     | 80.0        | 79.6           | 0.4            | 54.2       | 52.0          | 2.2            |
| OCCIDENTAL       | 75.9        | 79.0           | -3.1           | 53.4       | 52.8          | 0.6            |
| PETALUMA AIRPORT | 78.5        | 81.9           | -3.4           | 53.9       | 52.6          | 1.3            |
| SAINT HELENA     | 87.6        | 88.9           | -1.3           | 56.3       | 54.6          | 1.7            |
| SAN RAFAEL       | 81.4        | 79.7           | 1.7            | 56.8       | 55.2          | 1.6            |
| SANTA ROSA AP    | 82.8        | 83.3           | -0.5           | 52.6       | 51.1          | 1.5            |
| SONOMA           | 83.3        | 86.7           | -3.4           | 53.7       | 52.3          | 1.4            |

SAN FRANCISCO PENINSULA...

|                           |      |      |      |      |      |     |
|---------------------------|------|------|------|------|------|-----|
| HALF MOON BAY             | 67.7 | 66.1 | 1.6  | 55.9 | 52.3 | 3.6 |
| PALO ALTO                 | 78.0 | 79.4 | -1.4 | 57.1 | 54.9 | 2.2 |
| REDWOOD CITY              | 80.2 | 81.4 | -1.2 | 58.0 | 55.8 | 2.2 |
| SAN FRANCISCO<br>AIRPORT  | 71.6 | 72.7 | -1.1 | 57.3 | 56.3 | 1.0 |
| SAN FRANCISCO<br>DOWNTOWN | 66.6 | 68.1 | -1.5 | 55.9 | 55.1 | 0.8 |
| WOODSIDE                  | 88.0 | 88.2 | -0.2 | 54.1 | 51.2 | 2.9 |

EAST BAY...

|                 |      |      |      |      |      |     |
|-----------------|------|------|------|------|------|-----|
| ANTIOCH         | 87.8 | 90.0 | -2.2 | 59.2 | 58.6 | 0.6 |
| BERKELEY        | 74.3 | 74.3 | 0.0  | 54.7 | 53.9 | 0.8 |
| CONCORD         | 85.4 | 87.3 | -1.9 | 59.5 | 58.5 | 1.0 |
| CONCORD AIRPORT | 84.6 | 87.2 | -2.6 | 58.0 | 57.5 | 0.5 |
| FREMONT         | 75.7 | 79.0 | -3.3 | 57.6 | 56.8 | 0.8 |

|                 |      |      |      |      |      |      |
|-----------------|------|------|------|------|------|------|
| HAYWARD AIRPORT | 72.7 | 75.3 | -2.6 | 56.9 | 57.7 | -0.8 |
| LIVERMORE       | 86.7 | 88.4 | -1.7 | 56.8 | 56.7 | 0.1  |
| LIVERMORE AP    | 87.0 | 87.3 | -0.3 | 59.0 | 57.4 | 1.6  |
| MARTINEZ        | 87.0 | 87.9 | -0.9 | 52.0 | 51.2 | 0.8  |
| MOUNT DIABLO    |      |      |      |      |      |      |
| JUNCTION        | 79.6 | 84.7 | -5.1 | 59.0 | 59.7 | -0.7 |
| NEWARK          | 75.1 | 77.4 | -2.3 | 58.7 | 58.4 | 0.3  |
| OAKLAND         | 72.8 | 73.0 | -0.2 | 58.0 | 57.5 | 0.5  |
| OAKLAND AIRPORT | 71.9 | 72.4 | -0.5 | 57.3 | 55.7 | 1.6  |

SOUTH BAY AND SANTA CRUZ COUNTY...

|                |      |      |      |      |      |      |
|----------------|------|------|------|------|------|------|
| GILROY         | 85.7 | 87.8 | -2.1 | 55.6 | 54.6 | 1.0  |
| LOS GATOS      | 81.8 | 84.1 | -2.3 | 57.0 | 55.2 | 1.8  |
| MOFFETT FED AF | 75.5 | 77.3 | -1.8 | 59.8 | 59.2 | 0.6  |
| MOUNT HAMILTON | 75.8 | 77.4 | -1.6 | 61.5 | 64.1 | -2.6 |
| SAN JOSE       | 78.8 | 81.9 | -3.1 | 59.0 | 58.3 | 0.7  |
| SANTA CRUZ     | 78.9 | 76.2 | 2.7  | 55.9 | 54.3 | 1.6  |
| WATSONVILLE    | 72.8 | 72.3 | 0.5  | 55.5 | 54.1 | 1.4  |
| WATSONVILLE AP | 73.7 | 74.3 | -0.6 | 54.5 | 53.3 | 1.2  |

MONTEREY AND SAN BENITO COUNTIES...

|                  |      |      |      |      |      |      |
|------------------|------|------|------|------|------|------|
| CARMEL VALLEY    | 79.3 | 79.8 | -0.5 | 50.0 | 50.1 | -0.1 |
| HOLLISTER        | 80.9 | 82.0 | -1.1 | 54.8 | 53.6 | 1.2  |
| KING CITY        | 83.6 | 85.7 | -2.1 | 54.2 | 53.0 | 1.2  |
| MONTEREY         | 67.3 | 67.6 | -0.3 | 53.5 | 53.1 | 0.4  |
| MONTEREY AIRPORT | 69.3 | 68.9 | 0.4  | 55.7 | 54.2 | 1.5  |
| PINNACLES NP     | 93.7 | 94.9 | -1.2 | 48.0 | 50.2 | -2.2 |
| SALINAS          | 72.9 | 72.5 | 0.4  | 54.4 | 54.0 | 0.4  |
| SALINAS AIRPORT  | 73.0 | 72.1 | 0.9  | 56.7 | 55.7 | 1.0  |

...AUGUST REGIONAL PRECIPITATION SUMMARY...

NOTE: ONLY CLIMATE STATIONS WITH MEASURABLE RAINFALL DURING THE MONTH ARE LISTED.

| LOCATION | AUGUST<br>TOTAL | AVERAGE<br>AUGUST<br>PRECIP | PERCENT<br>OF NORMAL |
|----------|-----------------|-----------------------------|----------------------|
|----------|-----------------|-----------------------------|----------------------|

NORTH BAY...

|            |      |      |     |
|------------|------|------|-----|
| MUIR WOODS | 0.16 | 0.14 | 114 |
| OCCIDENTAL | 0.04 | 0.16 | 25  |

SAN FRANCISCO PENINSULA...

|                           |      |      |     |
|---------------------------|------|------|-----|
| HALF MOON BAY             | 0.26 | 0.22 | 118 |
| SAN FRANCISCO<br>DOWNTOWN | 0.04 | 0.06 | 67  |

EAST BAY...

|          |      |      |    |
|----------|------|------|----|
| BERKELEY | 0.05 | 0.06 | 83 |
|----------|------|------|----|

SOUTH BAY AND SANTA CRUZ COUNTY...

|                |      |      |    |
|----------------|------|------|----|
| MOUNT HAMILTON | 0.03 | 0.06 | 50 |
|----------------|------|------|----|

MONTEREY AND SAN BENITO COUNTIES...

|                  |      |      |     |
|------------------|------|------|-----|
| CARMEL VALLEY    | 0.02 | 0.03 | 67  |
| MONTEREY         | 0.01 | 0.07 | 14  |
| MONTEREY AIRPORT | 0.10 | 0.04 | 250 |
| SALINAS          | 0.07 | 0.04 | 175 |
| SALINAS AIRPORT  | 0.02 | 0.03 | 67  |

...DAILY RECORDS FOR AUGUST 2013...

| LOCATION |                        | RECORD<br>DALY<br>RAINFALL | PREVIOUS<br>RECORD |
|----------|------------------------|----------------------------|--------------------|
| 9/08     | SAN FRANCISCO DOWNTOWN | 0.03 INCHES                | 0.02 IN 1907       |

...MONTHLY RANKS FOR DOWNTOWN SAN FRANCISCO...

AVERAGE HIGH TEMPERATURE....66.6....46TH WARMEST OUT OF 140 YEARS  
AVERAGE LOW TEMPERATURE.....55.9....18TH WARMEST OUT OF 140 YEARS  
PRECIPITATION.....0.04 INCHES....26TH WETTEST OUT OF 161 YEARS

...MONTHLY EXTREMES FOR SELECT LOCATIONS...

| LOCATION           | MAX TEMP:<br>WARMEST<br>DAY(S) | MIN TEMP:<br>COOLEST<br>DAY(S) | PRECIP:<br>WETTEST<br>DAY(S) |
|--------------------|--------------------------------|--------------------------------|------------------------------|
| SANTA ROSA AIRPORT | 8/18 8/30<br>95 DEG            | 8/01<br>44 DEG                 | 8/26<br>0.01 IN              |
| SAN FRANCISCO      | 8/30<br>77 DEG                 | 8/03<br>52 DEG                 | 8/08<br>0.03 IN              |
| LIVERMORE AIRPORT  | 8/19<br>104 DEG                | 8/02<br>53 DEG                 | N/A                          |

|                 |                     |                |                   |
|-----------------|---------------------|----------------|-------------------|
| SAN JOSE        | 8/18<br>91 DEG      | 8/3<br>53 DEG  | N/A               |
| SALINAS AIRPORT | 8/25 8/30<br>82 DEG | 8/22<br>52 DEG | 8/07 8/08<br>0.01 |

NOTE: THIS CLIMATOLOGICAL DATA IS PRELIMINARY. FOR OFFICIAL  
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